SESSION

2

Introduction to Carbohydrate Counting

DMCN-CC
Introduction to
Carbohydrate Counting

STATEMENT OF PURPOSE

This session provides information on the use of carbohydrate counting to reach and stay at target blood sugar goals.

PREREQUISITES

It is recommended that participants have knowledge of the basics of healthy eating and checking blood sugar. Participants need to complete *BYLD*, Session #4: *Healthy Eating*, Sections 1 and 2, and *BYLD*, Session #7: *Home Blood Sugar Monitoring*, prior to this session.

LEARNING OBJECTIVES

DMCN-CC-1	Describe carbohydrate counting in simple terms.
DMCN-CC-2	Identify the carbohydrate food groups and list two or more foods in each group.
DMCN-CC-3	Define a carbohydrate serving.
DMCN-CC-4	State two or more benefits of carbohydrate counting to reach and stay at target blood sugar goals.
DMCN-CC-5	Identify the number of carbohydrate servings needed at each meal.
DMCN-CC-GS	State or write a personal plan for carbohydrate counting.

CONTENT

Carbohydrate counting for nutritional management of diabetes

MATERIALS NEEDED

Visuals Provided
- #1   *Carbohydrate Food Groups*
- #2   *Carbohydrate Serving Sizes*
- #3   *Free Foods*
- #4   *Carbohydrate in My Food (blank)*
- #5   *Carbohydrate in My Food (with data)*
- #6   *Changes I Can Make*

Additional Resources
Samples of foods common in participants' community
Food packages with listing of ingredients and Nutrition Facts Label
Food models (plastic and/or paper)
Measuring cups and spoons, rulers and food scales
Samples of completed food records
Basic Carbohydrate Counting
Exchange Lists for Meal Planning
Carbohydrate counting videos
Carbohydrate counting cards
Carbohydrate counting books

METHOD OF PRESENTATION

This session builds on information and skills provided in *BYLD*, Session #4: *Healthy Eating* and Session #7: *Home Blood Sugar Monitoring.* The instructor needs to be familiar with their content before teaching this session. The instructor may need to provide content in more than one session, depending on participants' knowledge and learning needs. **This session is an introduction only, and individuals need to be referred to a registered dietitian for an individualized meal plan.**

In order to use teaching materials effectively, instructors need to become familiar with the variety of materials available for this session. It is important for instructors to point out specific content in the materials and explain it. **Instructors need to avoid giving these materials to participants without explanation.**

Use a creative icebreaker. (See *BYLD*, Introduction on p. XIII for examples.) You may want to ask participants to introduce and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to discuss how carbohydrate counting can be used to achieve target blood sugar goals.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative and encourage interaction. Videos may be used to introduce or reinforce content. Use food records or develop examples that participants can use for problem-solving. **Encourage participants to have the person who prepares their food attend this session with them.**

CONTENT OUTLINE

Objective	Content	Instructor's Notes
DMCN-CC-1. Describe carbohydrate counting in simple terms.		Ask, "Has anyone had experience counting carbohydrates?" List/discuss responses.
	Carbohydrate foods affect blood sugar the most.	Review *BYLD,* Session #4: *Healthy Eating* as needed.
	Carbohydrate counting means choosing the number of carbohydrate servings, or grams, in meals and snacks needed to reach and stay at target blood sugar goals.	A serving is also called a portion. Use the word that is appropriate for participants' community.
		Emphasize that a person may use either the number of carbohydrate servings or the number of carbohydrate grams to count carbohydrates.
		Food choices need to be balanced with physical activity and medicine (if needed) to reach and stay at target blood sugar goals.
		Emphasize that staying at target blood sugar goals can prevent or delay long-term complications of diabetes.

Objective	Content	Instructor's Notes
DMCN-CC-2. Identify the carbohydrate food groups and list 2 or more foods in each group.	The carbohydrate food groups are:	Ask, "What foods have carbohydrates?" List/discuss responses. Visual #1: *Carbohydrate Food Groups* Provide a variety of food models from all food groups (plastic, paper, or actual). Have participants pick out the carbohydrate foods and place them in the appropriate carbohydrate food groups.
	• starches	Starches include: Bread, fry bread, oven bread, rolls, bagels, English muffins, tortillas, pita bread, pasta, noodles, spaghetti, macaroni, rice, wild rice, cereal (dry or cooked), starchy vegetables (potatoes, corn, green peas, squash [except zucchini and yellow] and taro root) and legumes (lentils, dried or canned beans [garbanzo, kidney, black, great northern, pinto, butter], dried peas [split or black-eyed]) and snacks (pretzels, chips, popcorn and crackers). Note: All other vegetables (non-starchy) have low amounts of carbohydrate. Non-starchy vegetables include green beans, asparagus, broccoli, cauliflower, onions and carrots.
	• fruit	Fruit includes: Apples, oranges, bananas, berries, and all other fruits that are fresh, frozen, dried, canned or juiced.
	• milk and yogurt	Milk and yogurt include: All milk and yogurt (plain or artificially sweetened).

Objective	Content	Instructor's Notes
DMCN-CC-2. (continued)		Note: Cheese and ice cream are not in the milk and yogurt carbohydrate food group.
	• sugary foods	Sugary foods include: sugar, honey, syrup, jam, jelly, cookies, cakes, donuts, ice cream, regular Jell-O® and other desserts, candy, regular soda/pop, sports drinks and sweetened waters.
DMCN-CC-3. Define a carbohydrate serving.	A carbohydrate serving of a food has about 15 grams (g) of carbohydrate in it. A carbohydrate serving of 15 grams (g), whether it comes from starches, fruit, milk and yogurt or sugary foods, raises a person's blood sugar about the same amount.	Visual #2: *Carbohydrate Serving Sizes* Note: The amount of food in one carbohydrate serving listed on the visuals in *BYFC* is based on the information in *Exchange Lists for Meal Planning*. See *Sources for Additional Materials*, p. 119. Assist participants in visualizing one carbohydrate serving of common carbohydrate foods by measuring the amounts listed on the visual. Provide measuring cups, spoons, rulers and food scales. Ask, "How does one carbohydrate serving of these foods compare to the amount you usually eat?" List/discuss responses. Assist participants in visualizing the amount of these foods they usually eat. Provide cups, bowls and other containers of various sizes. See the *Resource Directory* for sources of lists of one carbohydrate serving for a variety of food. Visuals #2, #3, #4 and #5 of *BYFC*, Session #3: *Introduction to Exchange Lists* also list one carbohydrate serving.

Objective	Content	Instructor's Notes
DMCN-CC-3. (continued)	The Food Label tells how much carbohydrate is in one serving of the food.	Carbohydrate counting cards may be used to visualize one carbohydrate serving. Label reading is also a helpful tool when counting carbohydrates. See *BYFC*, Session #1: *Introduction to Food Labels*, for more information on food labels. Note: A carbohydrate serving is not the same as the serving size on a food label. Visual #3: *Free Foods* Foods that have 5 grams (g) of carbohydrate or less, and less than 20 calories per serving, are considered "free" foods. They do not need to be counted as a carbohydrate food. It is best to limit these foods to no more than 15g per day.
DMCN-CC-4. State 2 or more benefits of carbohydrate counting to reach and stay at target blood sugar goals.	Carbohydrate counting helps a person with diabetes: • keep after meal blood sugar at target goal • keep blood sugar steady • balance food choices with physical activity and medicine • enjoy a variety of foods Carbohydrate counting works better to keep blood sugar at target goal if a person:	Ask, "What are some of the ways carbohydrate counting helps people reach and stay at their target blood sugar goals?" List/discuss responses. Visual #4: *Carbohydrate in My Food (blank)* Assist participants in writing down all the food and drinks they had at their most

Objective	Content	Instructor's Notes
DMCN-CC-4. (continued)	• eats about the same amount of carbohydrate at the same time each day • eats the amount of carbohydrate best for them • checks blood sugar after each meal • keeps food records	recent meal and complete the chart on Visual #4. Visual #5: *Carbohydrate in My Food (with data)* may be used as a sample for discussion instead of, or in addition to, Visual #4. This is especially helpful when a person is first learning how to count carbohydrates.
DMCN-CC-5. Identify the number of carbohydrate servings needed at each meal.	People need a certain number of carbohydrate servings <u>at each meal</u>: • women need about 3-4 servings (45-60 grams) • men need about 4-5 servings (60-75 grams) • snacks need to include no more than 1-2 servings (15-30 grams) A registered dietitian can help people learn the number of carbohydrate servings that are best for them.	Using Visual #4 and/or #5 completed in Objective 4 above, have participants compare their carbohydrate servings at each meal to the recommended number of servings. One tool for counting carbohydrates at meals is called a carbohydrate budget. A person has a certain number of carbohydrate servings or carbohydrate grams (a budget) to spend at each meal during a day. See Session #2, *Diabetes and Real Life Activity— Carbohydrate Budget*. **Refer participants to a registered dietitian for assistance with their meal plan and carbohydrate counting.**
DMCN-CC-GS. State or write a personal plan for carbohydrate counting.	Making changes in habits, such as using carbohydrate counting to reach and stay at target blood sugar goals, is easier when plans are broken down into small easy-to-do steps.	Visual #6: *Changes I Can Make* Provide information on other resources to help people use carbohydrate counting in meal planning, such as: • food labels • books • recipes

Objective	Content	Instructor's Notes
DMCN-CC-GS. (continued)		Assist participants in making a personal plan for carbohydrate counting. See *BYLD*, Session #3: *Making Healthy Changes*.

SKILLS CHECKLIST

Participants will be able to describe the benefits of using carbohydrate counting to plan food choices.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying personal meal planning goals and the use of carbohydrate counting to achieve those goals. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and achieved objectives as appropriate. Document patient response on PCC record using current *IHS Patient Education Protocols and Codes (PEPC)*.